EXHIBIT 19

EXHIBIT 19 - CHART FOR U.S. PATENT NO. 8,315,195

Huawei's Accused 4G Products operate on, and are configured to operate and capable of operating on, a Long Term Evolution (LTE) network, and are compliant with all mandatory provisions of the LTE standards including, for example, 3GPP TS 36.211 (including v8.7.0, and all subsequent releases and versions) (collectively, "the TS 36.211 standard"), 3GPP TS 36.213 (including v8.7.0, and all subsequent releases and versions) (collectively, "the TS 36.213 standard"), and 3GPP TS 36.300 (including v8.9.0, and all subsequent releases and versions) (collectively, "the TS 36.300 standard"). By complying with the TS 36.211, TS 36.213, and TS 36.300 standards, Huawei's Accused 4G Products infringe at least claims 9 and 25 of U.S. Patent No. 8,315,195 as explained more fully below.

9. A method for receiving control information in a terminal for a wireless communication system, the method comprising: receiving, from a base station, information associated with a number of Orthogonal	25. An apparatus for receiving control information in a terminal for a wireless communication system, the apparatus comprising:	Huawei's Accused 4G Products receive control information in a terminal for a wireless communication system, and receive, from a base station, information associated with a number of Orthogonal Frequency Division Multiplexing (OFDM) symbols carrying control channels. For example, Huawei's Accused 4G Products are compliant with subsection 5 of the TS 36.300 standard, which provides in relevant part: **5 Physical Layer for E-UTRA** Downlink and uplink transmissions are organized into radio frames with 10 ms duration. Two radio frame structures are supported: - Type 1, applicable to FDD, - Type 2, applicable to TDD. Frame structure Type 1 is illustrated in Figure 5.1-1. Each 10 ms radio frame is divided into ten equally sized sub-frames. Each sub-frame consists of two equally sized slots. For FDD, 10 subframes are available for downlink transmission and 10 subframes are available for uplink transmissions in each 10 ms interval. Uplink and downlink transmissions are separated in the frequency domain. 3GPP

<table>
<tr>
<td>Frequency Division Multiplexing (OFDM) symbols carrying control channels;</td>
<td></td>
<td>
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Physical control format indicator channel (PCFICH)

- Informs the UE about the number of OFDM symbols used for the PDCCHs;

- Transmitted in every downlink or special subframe.

The physical control format indicator channel is defined in subsection 6.7 of the TS 36.211 standard, which provides in relevant part:

6.7 Physical control format indicator channel

The physical control format indicator channel carries information about the number of OFDM symbols used for transmission of PDCCHs in a subframe. The set of OFDM symbols possible to use for PDCCH in a subframe is given by Table 6.7-1.

Table 6.7-1: Number of OFDM symbols used for PDCCH.

<table>
<tr><th>Subframe</th><th>Number of OFDM symbols for PDCCH when $N_{RB}^{DL} > 10$</th><th>Number of OFDM symbols for PDCCH when $N_{RB}^{DL} \leq 10$</th></tr>
<tr><td>Subframe 1 and 6 for frame structure type 2</td><td>1, 2</td><td>2</td></tr>
<tr><td>MBSFN subframes on a carrier supporting both PMCH and PDSCH for 1 or 2 cell specificc antenna ports</td><td>1, 2</td><td>2</td></tr>
<tr><td>MBSFN subframes on a carrier supporting both PMCH and PDSCH for 4 cell specific antenna ports</td><td>2</td><td>2</td></tr>
<tr><td>MBSFN subframes on a carrier not supporting PDSCH</td><td>0</td><td>0</td></tr>
<tr><td>All other cases</td><td>1, 2, 3</td><td>2, 3, 4</td></tr>
</table>

The PCFICH shall be transmitted when the number of OFDM symbols for PDCCH is greater than zero.
</td>
</tr>
<tr>
<td>determining a set of control channel</td>
<td>a set determiner for determining a set of</td>
<td>Huawei's Accused 4G Products include a set determiner for determining a set of control channel candidates based on an identifier of the terminal. Each control channel candidate included in</td>
</tr>
</table>

candidates based on an IDentifier (ID) of the terminal, wherein each control channel candidate included in the set of control channel candidates consists of one of one, two, four, and eight control channel elements (CCEs) existing in the OFDM symbols; and	control channel candidates based on an identifier (ID) of the terminal, wherein each control channel candidate included in the set of control channel candidates consists of one of one, two, four, and eight control channel elements (CCEs) existing in Orthogonal Frequency Division Multiplexing (OFDM) symbols carrying control channels; and	the set of control channel candidates consists of one of one, two, four, and eight control channel elements (CCEs) existing in the OFDM symbols. For example, Huawei's Accused 4G Products are compliant with subsection 9.1.1 and 7.1 of the TS 36.213 v8.7.0 standard, which provide in relevant part: **9 Physical downlink control channel procedures** **9.1 UE procedure for determining physical downlink control channel assignment** **9.1.1 PDCCH Assignment Procedure** The control region consists of a set of CCEs, numbered from 0 to $N_{\mathrm{CCE},k}-1$ according to Section 6.8.2 in [3], where $N_{\mathrm{CCE},k}$ is the total number of CCEs in the control region of subframe k. The UE shall monitor a set of PDCCH candidates for control information in every non-DRX subframe, where monitoring implies attempting to decode each of the PDCCHs in the set according to all the monitored DCI formats. The set of PDCCH candidates to monitor are defined in terms of search spaces, where a search space $S_k^{(L)}$ at aggregation level $L \in \{1,2,4,8\}$ is defined by a set of PDCCH candidates. The CCEs corresponding to PDCCH candidate m of the search space $S_k^{(L)}$ are given by $$L \cdot \{(Y_k + m) \bmod \lfloor N_{\mathrm{CCE},k} / L \rfloor\} + i$$ where Y_k is defined below, $i = 0,\cdots,L-1$ and $m = 0,\cdots,M^{(L)}-1$. $M^{(L)}$ is the number of PDCCH candidates to monitor in the given search space. The UE shall monitor one common search space at each of the aggregation levels 4 and 8 and one UE-specific search space at each of the aggregation levels 1, 2, 4, 8. The common and UE-specific search spaces may overlap. The aggregation levels defining the search spaces are listed in Table 9.1.1-1. The DCI formats that the UE shall monitor depend on the configured transmission mode as defined in Section 7.1. 3GPP

		Release 8 65 3GPP TS 36.213 V8.7.0 (2009-05) **Table 9.1.1-1: PDCCH candidates monitored by a UE.** (see table below) For the common search spaces, Y_k is set to 0 for the two aggregation levels $L=4$ and $L=8$. For the UE-specific search space $S_k^{(L)}$ at aggregation level L, the variable Y_k is defined by $Y_k = (A \cdot Y_{k-1}) \bmod D$ where $Y_{-1} = n_{RNTI} \neq 0$, $A = 39827$, $D = 65537$ and $k = \lfloor n_s/2 \rfloor$, n_s is the slot number within a radio frame.. The RNTI value used for n_{RNTI} is defined in section 7.1 in downlink and section 8 in uplink. 7.1 UE procedure for receiving the physical downlink shared channel A UE shall upon detection of a PDCCH with DCI format 1, 1A, 1B, 1C, 1D, 2 or 2A intended for the UE in a subframe, decode the corresponding PDSCH in the same subframe with the restriction of the number of transport blocks defined in the higher layers.

Type	Search space $S_k^{(L)}$ Aggregation level L	Size [in CCEs]	Number of PDCCH candidates $M^{(L)}$
UE-specific	1	6	6
	2	12	6
	4	8	2
	8	16	2
Common	4	16	4
	8	16	2

If a UE is configured by higher layers to decode PDCCH with CRC scrambled by the C-RNTI, the UE shall decode the PDCCH and any corresponding PDSCH according to the respective combinations defined in table 7.1-5. The scrambling initialization of PDSCH corresponding to these PDCCHs is by C-RNTI.

When a UE configured in transmission mode 3 or 4 receives a DCI Format 1A assignment, it shall assume that the PDSCH transmission is associated with transport block 1 and that transport block 2 is disabled.

When a UE is configured in transmission mode 7, scrambling initialization of UE-specific reference signals corresponding to these PDCCHs is by C-RNTI.

Table 7.1-5: PDCCH and PDSCH configured by C-RNTI

Transmission mode	DCI format	Search Space	Transmission scheme of PDSCH corresponding to PDCCH
Mode 1	DCI format 1A	Common and UE specific by C-RNTI	Single-antenna port, port 0 (see subclause 7.1.1)
	DCI format 1	UE specific by C-RNTI	Single-antenna port, port 0 (see subclause 7.1.1)
Mode 2	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 1	UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
Mode 3	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 2A	UE specific by C-RNTI	Large delay CDD (see subclause 7.1.3) or Transmit diversity (see subclause 7.1.2)
Mode 4	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 2	UE specific by C-RNTI	Closed-loop spatial multiplexing (see subclause 7.1.4)or Transmit diversity (see subclause 7.1.2)
Mode 5	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 1D	UE specific by C-RNTI	Multi-user MIMO (see subclause 7.1.5)
Mode 6	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 1B	UE specific by C-RNTI	Closed-loop spatial multiplexing (see subclause 7.1.4) using a single transmission layer
Mode 7	DCI format 1A	Common and UE specific by C-RNTI	If the number of PBCH antenna ports is one, Single-antenna port, port 0 is used (see subclause 7.1.1), otherwise Transmit diversity (see subclause 7.1.2)
	DCI format 1	UE specific by C-RNTI	Single-antenna port; port 5 (see subclause 7.1.1)

If a UE is configured by higher layers to decode PDCCH with CRC scrambled by the SPS C-RNTI, the UE shall decode the PDCCH and any corresponding PDSCH according to the respective combinations defined in table 7.1-6.

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The E-UTRAN related UE identities are defined in subsection 8.1 of the TS 36.300 v8.7.0

		standard, which provides in relevant part: **8 E-UTRAN identities** **8.1 E-UTRAN related UE identities** The following E-UTRAN related UE identities are used: a) C-RNTI: - The C-RNTI provides a unique UE identification at the cell level identifying RRC Connection and used for scheduling; b) Random value for contention resolution: - During some transient states, the UE is temporarily identified with a random value for contention resolution purposes.
monitoring at least one control channel candidate belonging to the set of control channel candidates to receive the control information.	a reception unit for receiving information associated with a number of the OFDM symbols and receiving the control information included in the OFDM symbols by decoding at least one control channel candidate included in the set of control	Huawei's Accused 4G Products include a reception unit for receiving information associated with a number of the OFDM symbols and receiving the control information included in the OFDM symbols by decoding at least one control channel candidate included in the set of control channel candidates. Huawei's Accused 4G Products monitor at least one control channel candidate belonging to the set of control channel candidates to receive the control information. For example, Huawei's Accused 4G Products are compliant with subsection 9.1.1 of the TS 36.213 standard, which provides in relevant part:

	channel candidates.	# 9 Physical downlink control channel procedures ## 9.1 UE procedure for determining physical downlink control channel assignment ### 9.1.1 PDCCH Assignment Procedure The control region consists of a set of CCEs, numbered from 0 to $N_{\mathrm{CCE},k}-1$ according to Section 6.8.2 in [3], where $N_{\mathrm{CCE},k}$ is the total number of CCEs in the control region of subframe k. The UE shall monitor a set of PDCCH candidates for control information in every non-DRX subframe, where monitoring implies attempting to decode each of the PDCCHs in the set according to all the monitored DCI formats. The set of PDCCH candidates to monitor are defined in terms of search spaces, where a search space $S_k^{(L)}$ at aggregation level $L \in \{1,2,4,8\}$ is defined by a set of PDCCH candidates. The CCEs corresponding to PDCCH candidate m of the search space $S_k^{(L)}$ are given by $$L \cdot \{(Y_k + m) \bmod \lfloor N_{\mathrm{CCE},k} / L \rfloor\} + i$$ where Y_k is defined below, $i = 0, \cdots, L-1$ and $m = 0, \cdots, M^{(L)}-1$. $M^{(L)}$ is the number of PDCCH candidates to monitor in the given search space. The UE shall monitor one common search space at each of the aggregation levels 4 and 8 and one UE-specific search space at each of the aggregation levels 1, 2, 4, 8. The common and UE-specific search spaces may overlap. The aggregation levels defining the search spaces are listed in Table 9.1.1-1. The DCI formats that the UE shall monitor depend on the configured transmission mode as defined in Section 7.1. 3GPP

		Release 8 65 3GPP TS 36.213 V8.7.0 (2009-05) **Table 9.1.1-1: PDCCH candidates monitored by a UE.** (see table below) For the common search spaces, Y_k is set to 0 for the two aggregation levels $L=4$ and $L=8$. For the UE-specific search space $S_k^{(L)}$ at aggregation level L, the variable Y_k is defined by $Y_k = (A \cdot Y_{k-1}) \bmod D$ where $Y_{-1} = n_{RNTI} \neq 0$, $A = 39827$, $D = 65537$ and $k = \lfloor n_s / 2 \rfloor$, n_s is the slot number within a radio frame.. The RNTI value used for n_{RNTI} is defined in section 7.1 in downlink and section 8 in uplink. **7.1 UE procedure for receiving the physical downlink shared channel** A UE shall upon detection of a PDCCH with DCI format 1, 1A, 1B, 1C, 1D, 2 or 2A intended for the UE in a subframe, decode the corresponding PDSCH in the same subframe with the restriction of the number of transport blocks defined in the higher layers.

Type	Search space $S_k^{(L)}$ Aggregation level L	Search space $S_k^{(L)}$ Size [in CCEs]	Number of PDCCH candidates $M^{(L)}$
UE-specific	1	6	6
	2	12	6
	4	8	2
	8	16	2
Common	4	16	4
	8	16	2

If a UE is configured by higher layers to decode PDCCH with CRC scrambled by the C-RNTI, the UE shall decode the PDCCH and any corresponding PDSCH according to the respective combinations defined in table 7.1-5. The scrambling initialization of PDSCH corresponding to these PDCCHs is by C-RNTI.

When a UE configured in transmission mode 3 or 4 receives a DCI Format 1A assignment, it shall assume that the PDSCH transmission is associated with transport block 1 and that transport block 2 is disabled.

When a UE is configured in transmission mode 7, scrambling initialization of UE-specific reference signals corresponding to these PDCCHs is by C-RNTI.

Table 7.1-5: PDCCH and PDSCH configured by C-RNTI

Transmission mode	DCI format	Search Space	Transmission scheme of PDSCH corresponding to PDCCH
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Mode 2	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 1	UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
Mode 3	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 2A	UE specific by C-RNTI	Large delay CDD (see subclause 7.1.3) or Transmit diversity (see subclause 7.1.2)
Mode 4	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 2	UE specific by C-RNTI	Closed-loop spatial multiplexing (see subclause 7.1.4)or Transmit diversity (see subclause 7.1.2)
Mode 5	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 1D	UE specific by C-RNTI	Multi-user MIMO (see subclause 7.1.5)
Mode 6	DCI format 1A	Common and UE specific by C-RNTI	Transmit diversity (see subclause 7.1.2)
	DCI format 1B	UE specific by C-RNTI	Closed-loop spatial multiplexing (see subclause 7.1.4) using a single transmission layer
Mode 7	DCI format 1A	Common and UE specific by C-RNTI	If the number of PBCH antenna ports is one, Single-antenna port, port 0 is used (see subclause 7.1.1), otherwise Transmit diversity (see subclause 7.1.2)
	DCI format 1	UE specific by C-RNTI	Single-antenna port; port 5 (see subclause 7.1.1)

If a UE is configured by higher layers to decode PDCCH with CRC scrambled by the SPS C-RNTI, the UE shall decode the PDCCH and any corresponding PDSCH according to the respective combinations defined in table 7.1-6.

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